REMARKS

In the Official Action mailed 02 March 2006, the Examiner reviewed claims 45-55. The Examiner has rejected claim 45 under 35 U.S.C. §112, second paragraph; has rejected claims 45, 49, 51 and 55 under 35 U.S.C. §112, second paragraph; has rejected the specification under 37 C.F.R. 1.52(a); has rejected claims 45-48 under 35 U.S.C. §103(a); and has rejected claims 49-55 35 U.S.C. §103(a).

Applicant has amended claims 45, 49, 51-53 and 55. Claims 45-55 remain pending.

The rejections are respectfully traversed below, and reconsideration is requested in view of the amendments.

Rejection of the specification under 37 C.F.R. 1.52(a)

The Examiner has rejected the specification under 37 C.F.R. §1.52(a) as containing improper idiomatic English. Applicant submits herewith a substitute specification which includes no new matter, as well as a marked up version of the substitute specification, pursuant to 37 C.F.R. §1.125.

Accordingly, reconsideration of the rejection of the specification as amended is respectfully requested.

Rejection of Claim 45 under 35 U.S.C. §112, second paragraph

The Examiner has rejected claim 45 under 35 U.S.C. §112, second paragraph as being indefinite. Applicant has amended claim 45 in response to the rejection.

Accordingly, reconsideration of the rejection of claim 45 as amended is respectfully requested.

Rejection of Claims 45, 49, 51 and 55 under 35 U.S.C. §112, second paragraph

The Examiner has rejected claims 45, 49, 51 and 55 under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Applicant has amended claims 45, 49, 51 and 55 in response to the rejection.

Accordingly, reconsideration of the rejection of claims 45, 49, 51 and 55 as amended is respectfully requested.

Rejection of Claims 45-48 under 35 U.S.C. §103(a)

The Examiner has rejected claims 45-48 under 35 U.S.C. §103(a) as being unpatentable over (US 5,991,750) Watson in view of (US 6,021,202) Anderson et al. Applicant respectfully requests reconsideration, because the Examiner is misreading the claims or the prior art. As a result, the prima facie case of unpatentability is incomplete. Applicant presents an overview as an aid to understanding the technology, and then addresses the specific claims herein.

The present invention provides a computer-implemented transaction processing method that addresses at least three problems of prior art financial transaction systems. First, the present invention provides a protocol for preventing fraud. Second, the present invention provides a protocol to protect account holder privacy. Third, the present invention provides an architecture that is scalable for implementations handling large numbers of concurrent transactions.

The problem of fraud:

According to the prior art including Watson and Anderson et al., computer-driven transactions in which a financial institution server authorizes a transaction with a vendor omit authentication of the account holder, and instead rely upon the vendor to authenticate the account holder. Thus, the vendor obtains both the account number and personal identification information about the account holder. The possession by the vendor of this information about the account holder creates a security loop hole, and engenders fraud. As is well known, a person having an account number and personal identification information about the account holder can easily execute fraudulent transactions. In the system of the present invention, the techniques and protocols are provided for execution of transactions for which the account number and personal identification information about the account holder are not sufficient for obtaining an authorized transaction. The present invention provides a data processing system which makes access to the account number and personal identification information insufficient to conduct a fraudulent transaction, using technological authentication, authorization and accounting. So even if this information is somehow stolen, it cannot be fraudulently used in the system claimed herein.

The problem of privacy:

Also according to the prior art including Watson and Anderson et al., credit and debit card transactions require that the card holder provide personal identity information to the vendor,

including personal identification credentials such as name, address, signature and sometimes identification numbers like a driver's license number. Thus, the vendor gains possession of the data that compromises the privacy of the transaction. Thus, the vendor obtains information about the account holder which the account holder may not want to be publicly known. The present invention provides a data processing method which closes this privacy loophole of the prior art, using technological authentication, authorization and accounting that make disclosure of personal identification information to the vendor unnecessary.

The problem of scalability:

The present invention also provides a scalable data processing system architecture, based on the creation and processing of authentication and authorization records, that is capable of efficiently handling large numbers of transactions occurring randomly in time. There is no similar architecture presented in the prior art.

These basic assertions concerning the technology described in the present application aside, Applicant addresses the claims specifically at issue here. Claim 45 is the sole independent claim. The Examiner asserts that Watson teaches all the limitations of claim 45 with the exception of "matching the authorization record with the authentication record ..." The Examiner relies upon Anderson et al. to suggest the matching step. Office Action, page 5. However, the Examiner is misreading the references.

First, Watson does not teach the first step in claim 45, which reads:

> establishing an authentication record using the computer-based data processing system for a predicted transaction by a particular account holder, the predicted transaction having a predicted transaction amount and a transaction time parameter, and an authenticated transaction signature for presentation upon execution of the predicted transaction;

The Examiner cites column 1, line 61 to column 2, line 21 and Figure 1 of Watson as teaching this limitation. However, the Examiner is mistaken. The cited passage does not mention authentication in any sense, and does not describe "an authentication record" as required by the claim. There is no description of the creation of a record of any type, much less a record that includes an authenticated transaction signature and a time parameter. Rather, the cited passage

of Watson describes the problem of authorization of specific transaction types. There is no mention of an authentication process, and no mention of problems associated with authentication in Watson.

Second, Watson does not teach the second step in claim 45, which reads:

> establishing an authorization record using the computer-based data processing system for a particular transaction indicating an actual transaction amount, an actual transaction time and a presented transaction signature;

Although Watson is concerned with authorization of specific transactions, it does not describe an "authorization record" as claimed herein and does not describe a process in which the data for the authorization record are gathered. In particular, there is no concept in Watson of a "presented transaction signature."

The Examiner cites column 2, lines 22-50, column 3, lines 9-24, Figure 1 and Figure 2A of Watson as suggesting this second limitation in claim 45. However, the Examiner is mistaken. The cited passage describes the process performed by an authorizing agent comparing transaction parameters with static account limitations (like types of services and goods (SIC parameters) and transactional limits (single transaction limits or aggregate limitations upon successive transactions). All these limitations are compared with the authorization request issued by the merchant: account number, transaction amount, Standard Industrial Code (SIC) parameters, merchant identifier (MID), and acquiring bank ID number (BIN). In Watson, FIG. 2A clearly shows two stages of preset limitations of transaction authorization: "pre-authorize transaction" - static limitations on the account for any possible transactions; "authorize transaction" - third party agent compares static transaction limitations on the account with the authorization request from the merchant.

The Examiner acknowledges that Watson does not teach the third step in claim 45, which reads:

> matching the authorization record with the authentication record using the computer-based data processing system to determine whether the presented transaction signature matches the authenticated transaction signature for the predicted transaction, the actual transaction amount matches the predicted transaction amount and the actual transaction time matches the transaction time parameter;

Even if Anderson et al. suggested this third step, the prima facie case would be complete as failing to include a teaching of the first and second steps quoted above. Nonetheless, Anderson et al. does not describe a matching step as recited in the just quoted limitation of claim 45.

Anderson et al. describes a technology for creating on-line documents for financial transactions based on a markup language such as SGML. The concept of a transaction signature as claimed in the present application is absent, and *a priori*, the concept of matching authentication and authorization records based on transaction signatures is not described in Anderson et al.

The Examiner cites column 6, lines 17-54 of Anderson et al. as suggesting the matching step in claim 45. However, the Examiner is mistaken. The cited passage describes a "paper check transaction." (Anderson et al. column 6, line 6). The paper check transaction is unrelated to the credit card transaction of Watson, and would not be combined with Watson. Furthermore, the present invention would not be created, even if one were to add the paper check transaction of Anderson et al. to Watson. The cited passage of Anderson et al. does not describe matching of computer- implemented records associated with a transaction as required by the claims herein. The combination does not include the concept of matching transaction signatures in any form.

Claims 46-48 depend from claim 45, and are patentable for at least the same reasons, and because of the unique combinations recited.

Accordingly, reconsideration of the rejection of claims 45-48 (as amended) is respectfully requested.

Rejection of Claims 49-55 under 35 U.S.C. §103(a)

The Examiner has rejected claims 49-55 under 35 U.S.C. §103(a) as being unpatentable over (US 5,991,750) Watson and (US 6,021,202) Anderson et al., in view of (US 6,047,270) Joao et al.

Claims 49-55 depend from claim 45, and are patentable for at least the same reasons, and because of the unique combinations recited. Furthermore, Applicant submits that Joao et al. does not teach the limitations in claims 49-55, and does not support a *prima facie* case of unpatentability. Thus, the Examiner appears to be misreading the reference. For one example, the Examiner cites col. 8, lines 54-64 of Joao et al. as teaching the limitations in claim 50, of "prompting the particular account holder to supply a combination of digits from a personal identification code, wherein the combination does not include all of the personal identification

code." However, the cited passage is not related to submission of personal identification codes, and not related to the unique feature of claim 50. Rather, the cited passage merely generically refers financial transactions, and real-time monitoring of activity related to accounts. Thus, the citation appears to be a mistake. Nonetheless, Applicant finds no teaching in Joao et al. related to claim 50 in any respect.

Accordingly, reconsideration of the rejection of claims 49-55 as amended is respectfully requested.

CONCLUSION

It is respectfully submitted that this application is now in condition for allowance, and such action is requested.

The Commissioner is hereby authorized to charge any fee determined to be due in connection with this communication, or credit any overpayment, to our Deposit Account No. 50-0869 (AIDT 1000-1).

Respectfully submitted,

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Attachments: Marked-up specification
Clean substitute specification